

# Preventing slips, trips and falls on farms

**JULY 2014**



# **The purpose of these guidelines is to help reduce the risk of injuries by providing guidance on how to prevent slips, trips and falls on farms.**

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## **ACKNOWLEDGEMENTS**

This guide was prepared by WorkSafe New Zealand (WorkSafe NZ), with help from:

- > Accident Compensation Corporation (ACC)
- > Beef and Lamb New Zealand
- > DairyNZ
- > Dairy Womens Network
- > FarmSafe
- > Federated Farmers of New Zealand Inc
- > Horticulture New Zealand
- > Landcorp Farming Limited
- > Lincoln University
- > Ministry for Primary Industries
- > New Zealand Council of Trade Unions (NZCTU)
- > New Zealand Dairy Workers Union
- > New Zealand Transport Agency (NZTA)
- > Primary Industry Training Organisation
- > Rural Contractors New Zealand
- > Rural Women New Zealand Inc
- > University of Auckland
- > University of Otago.

The guide was largely adapted from an existing ACC publication Preventing Slips, Trips and Falls around the Farm.

The guide is also based on information from other similar countries. We acknowledge WorkSafe Victoria (Australia) for providing information.

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# **PREVENTING SLIPS, TRIPS AND FALLS ON FARMS: KEY POINTS**

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**Keep work areas clean, dry and tidy**

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**Use footwear with good tread**

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**Always use three points of contact on ladders or when mounting/dismounting tractors and mobile plant**

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**Arrange work areas to minimise slip, trip and fall hazards: eg use rubber mats**

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**Find ways to do tasks from the ground, rather than at heights**

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## INTRODUCTION

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### IN THIS SECTION:

- 1.1 Purpose
- 1.2 Scope
- 1.3 Development

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## This guideline is about helping you avoid slips, trips and falls on the farm.

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### 1.1 PURPOSE

Farm workers do many jobs where there is a risk of slips, trips and falls.

These include:

- > working at height
- > working on uneven or slippery surfaces
- > using ladders
- > getting on and off tractors
- > working in the milking shed
- > working with vats, tanks and silos
- > working with livestock.

This guide outlines potential slip, trip and fall hazards on farms and recommends ways to eliminate, isolate and minimise those hazards. WorkSafe NZ accepts these recommendations as current industry best practice. They will help you comply with the Health and Safety in Employment Act 1992 (the HSE Act).

### 1.2 SCOPE

This guide applies to farmers, employers, employees, principals, contractors, health and safety advisers, health and safety representatives, consultants and designers.

### 1.3 DEVELOPMENT

Industry experts helped WorkSafe NZ develop this guide. WorkSafe NZ also reviewed accident statistics and published academic literature, and looked at how overseas health and safety regulators manage the same issues.

WorkSafe NZ has made every effort to ensure the guide's recommended hazard controls reflect current best practice.



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## **GENERAL RECOMMENDATIONS**

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### **IN THIS SECTION:**

- 2.1 Working at height**
- 2.2 Ladders**
- 2.3 Other ways to work at heights**
- 2.4 Slips, trips and falls on flat ground**

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This section provides general advice on how to manage slip, trip and fall hazards. It covers working at height, using ladders, and slips, trips and falls on flat ground.

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## 2.1 WORKING AT HEIGHT

Sometimes farming involves working at heights. Examples include: repairing shed roofs, inspecting grain and fertiliser silos, painting buildings and clearing guttering. Falls from height can kill and cause serious injuries, like broken bones.

### MANAGING THE HAZARD:

#### Hierarchy of Controls

When working at heights, follow this simple hierarchy of controls:

1. Can someone do the job without having to work at height? (Eliminate the hazard)
2. If you can't remove the need to work at height, isolate workers from the hazard. Do this by using safe working platforms, edge protection (eg guardrails, fences, walls), scaffolding, elevated work platforms, mobile scaffolds and barriers to restrict access.
3. If you can't eliminate or isolate the hazard, you have to minimise the chance that someone could get hurt. Think about using ropes, safety harnesses and safety nets.

If you or your workers could fall from height, you must put up barriers to help stop falls.

Most man-made structures can be fitted with guard rails, walls or fences. It might not be practical to have edge protection for natural hazards like cliffs.

Employers and employees must take care if falls are possible. Use a harness or other type of fall protection on roofs or in trees and the like. If you use a harness, you must train the worker on how to use it safely. A second person must be present to help them if they fall and are dangling in the harness.

### Regulation 21

Regulation 21 of the Health and Safety in Employment Regulations 1995 is the often-quoted 'three metre rule'. It is often used as an excuse for not managing height hazards if a worker can 'only' fall less than three metres.

However, under the Act, if a worker can fall from any height, the employer must take all practicable steps to stop the worker getting hurt.

## 2.2 LADDERS

Farm workers use ladders when working at height. They are often unstable. Many people falling off ladders have been killed and seriously injured.

Accidents often happen when workers use unsuitable or unstable ladders, or use ladders unsafely, like overreaching or carrying loads up or down.

### MANAGING THE HAZARD:

Use other tools or equipment where possible to eliminate the need to work from a ladder.



**SECTION 2.0 // GENERAL RECOMMENDATIONS**

Examples include long-handled tools like paint rollers or window brushes with extending handles.

Where someone has to work from a ladder, follow the steps in the table below to minimise the risk.

<b>CONTROLS</b>	<b>EXPLANATION</b>
<b>Use the right ladder</b>	<ul style="list-style-type: none"> <li>&gt; Train workers how to use ladders safely.</li> <li>&gt; Inspect ladders regularly and keep them in good condition.</li> <li>&gt; Workers should only use the most suitable ladder for the job – the ladder has to handle the loads put on it.</li> <li>&gt; Step ladders should have a lockable spreader.</li> </ul>
<b>Position the ladder correctly</b>	<ul style="list-style-type: none"> <li>&gt; Position the ladder as close as possible to the work.</li> <li>&gt; Stand ladders on a level, firm base.</li> <li>&gt; If using a ladder to get to a working platform, extend the ladder one metre above the working platform.</li> <li>&gt; Place ladder feet for single or extension ladders one-quarter of the ladder’s working length away from the base structure.</li> <li>&gt; After placing the ladder, tie the top and bottom of the ladder to secure it. If placing a ladder on soft ground, use stakes or get someone to hold the ladder while you use it.</li> <li>&gt; Never overreach sideways. As a guide, your belt buckle should always stay within the ladder’s stiles (uprights). If you can’t get to the work, move the ladder nearer.</li> </ul>
<b>Work safely on the ladder</b>	<ul style="list-style-type: none"> <li>&gt; Use two people to carry long or heavy ladders.</li> <li>&gt; Keep three points of contact when climbing up or down ladders – such as two hands and one foot, or two feet and one hand.</li> <li>&gt; Carry out work at least three steps down from the top of the ladder.</li> <li>&gt; Don’t hang tools and other items from the steps or rungs.</li> </ul>
<b>For fixed ladders</b>	<ul style="list-style-type: none"> <li>&gt; Make sure external ladders on silos start at a height that children can’t reach.</li> <li>&gt; Fixed access ladders that go above six metres and are steeper than 75 degrees should have a rest point, cage guards or hoops, and straps from 2 metres high.</li> <li>&gt; If cage guards or hoops are not possible for fixed access ladders, workers should use a harness when climbing them.</li> </ul>
<b>Regularly maintain and inspect ladders</b>	<ul style="list-style-type: none"> <li>&gt; Check for: <ul style="list-style-type: none"> <li>- bent or twisted stiles (uprights)</li> <li>- worn or split rungs or steps</li> <li>- loose, bent or disconnected braces</li> <li>- damaged or missing locking bars, rivets or non-slip feet.</li> </ul> </li> <li>&gt; Tag a defective ladder so it isn’t used until you repair or replace it.</li> <li>&gt; Keep ladders clean and free from foreign materials.</li> <li>&gt; Store ladders carefully so they don’t sag.</li> </ul>

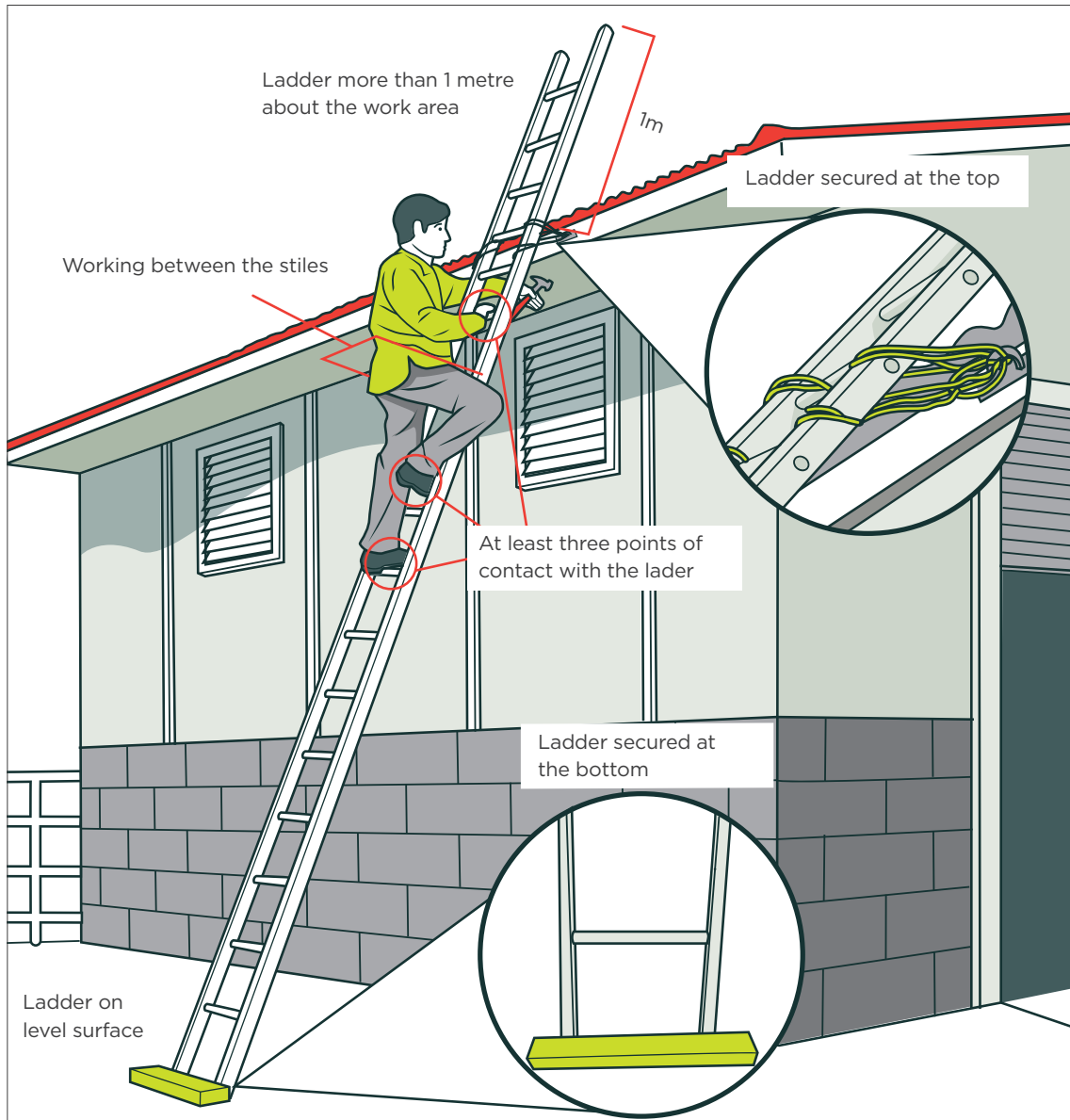


Figure 1: Using ladders safely

## 2.3 OTHER WAYS TO WORK AT HEIGHTS

In some situations, you can find different ways to work at height. 'Group controls' that keep more than one worker safe are better. Controls like harnesses and temporary work platforms don't provide as much protection as group controls. Only use them if group controls are not practicable. Examples of group controls are:

CONTROLS	EXPLANATION
Scaffolding	<ul style="list-style-type: none"> <li>&gt; Scaffolds should meet WorkSafe New Zealand's <i>Good Practice Guidelines for Scaffolding in New Zealand</i> or a higher standard.</li> <li>&gt; Only trained people with experience with the type of scaffold in use should put up, change and take down scaffolds.</li> <li>&gt; For more information about safe scaffold choice, erection and use, see the <i>Good Practice Guidelines for Scaffolding in New Zealand</i> and AS/NZS 1576.1-6 Scaffolding Series.</li> </ul>
Edge protection	<ul style="list-style-type: none"> <li>&gt; Use edge protection to stop people or objects from falling. Use edge protection around:               <ul style="list-style-type: none"> <li>- work area edges</li> <li>- openings</li> <li>- if brittle material (that can't safely support a person's weight) is present.</li> </ul> </li> <li>&gt; Edge protection can be temporary (eg during construction you can use scaffolding) or permanent (eg in completed buildings a permanent guard rail preventing falls from a raised platform).</li> </ul>
Mechanical access plant	<ul style="list-style-type: none"> <li>&gt; This includes all mechanically-operated plant that people use to get to high areas. Commonly-used mechanical access plant includes:               <ul style="list-style-type: none"> <li>- mobile elevating work platforms</li> <li>- forklift platforms</li> <li>- crane lift platforms</li> <li>- vehicle extension arms</li> <li>- knuckle booms.</li> </ul> </li> <li>&gt; These are specialised pieces of equipment, usually designed for particular types of work. It is essential that you choose the right machine for the job. The operator must know how to use the machine safely and follow the manufacturer's guidelines.</li> </ul>
Safety mesh	<ul style="list-style-type: none"> <li>&gt; Safety mesh can protect workers against falling through a roof when laying roof sheets. If securely fixed, it can also stop falls for maintenance and repair workers.</li> <li>&gt; Use safety mesh with suitable edge protection like guardrails. If you can't isolate the workers with guardrails, they should use a safety harness.</li> <li>&gt; Safety mesh should meet AS/NZS 4389 <i>Safety Mesh</i>. The standard has minimum requirements for designing, building, testing and installing safety mesh in domestic, commercial and industrial buildings.</li> </ul>

## 2.4 SLIPS, TRIPS AND FALLS ON FLAT GROUND

Farming involves working with different ground conditions: muddy, slippery, steep, with obstacles and tripping hazards. Farm workers can slip because of:

- > slippery surfaces: wet or icy weather, sluicing water, effluent, mud and manure. A change in weather can create unexpected changes in surfaces
- > unexpected change to surface friction: such as moving from a slip-resistant surface (for example, rubber matting) to a surface with lower slip resistance (like wet, smooth concrete or polished wood)
- > carrying objects over uneven or steep terrain
- > holes in the ground and tomos (caves)
- > speed: walking quickly or running
- > footwear with poor-grip or loose soles
- > obstacles: a step or rise of as little as 9–10mm can cause a trip (for example, pipes or cables in the yards) and rough ground
- > poorly designed steps – too high or not deep enough, or in poorly lit areas, like in and around the milking pit
- > climbing fences and gates.

### MANAGING THE HAZARD:

Change the work area to reduce slipping and tripping hazards.

Clean, smooth (but not slippery) and flat surfaces prevent slips, trips and falls:

- > Provide dry walking and working areas where practical, such as covered areas in and around sheds.
- > Use non-skid strips or surfaces on:
  - wet working surfaces: like catwalks in yards (to make a surface non-slip, attach non-slip mats, timber grips or chicken netting securely to planks)

- surfaces likely to get slippery, such as shearing boards.
- > Provide handrails on steps and make sure steps have the same rise and depth, visible edges with a good tread and nothing sticking out.
- > Slopes in sheds should be gradual, wide and slip-resistant.
- > Keep the work area and equipment in good condition. Check roofs don't leak onto the shearing board (these get very slippery when wet). Look for nails, screws and bolts that are sticking out – pull them out, screw them in or trim them up.
- > Carry out regular housekeeping and clear up obstacles and spills as they occur, particularly in unsafe areas (like steps and slopes) and areas with regular foot traffic.
- > Have good lighting, especially where there are steps, kerbs or obstacles (like in stock yards).
- > Keep entrances and exits clear of clutter.

Provide warnings about slipping and tripping hazards.

Visual cues like coloured strips alert people to changes in surface friction or level.

Use slip-resistant footwear.

Footwear should have a large heel-to-surface contact area, rubber soles and heels. Replace boots before the tread wears out.

Improve the working environment.

- > Yard design: Improvements to yard design can reduce unpredictable stock behaviour, and minimise the potential for accidents.
- > Inter-worker communication: Talk to staff about hazards. Methods that work include a double-up of job board or book with a daily hazard list in the workshop where staff leave personal gear.

## SECTION 2.0 // GENERAL RECOMMENDATIONS

- > Grazing management: Research and promote good practice in the grazing sequencing of paddocks to reduce the frequency of staff moving quickly across difficult, churned-up surfaces.
- > Alkaline/cleaning products: Think about using coloured alkaline to clean walking surfaces so staff can see slippery areas.
- > Check your path is clear of obstacles before carrying loads.
- > Make sure you can see over and around your load.
- > Fence off or provide warnings for holes in the ground or tomos (caves).

Take other precautions where necessary:

- > Don't rush. Allow extra time when conditions are slippery, for example wet or icy conditions.





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## **SPECIFIC HAZARDS AND CONTROLS**

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### **IN THIS SECTION:**

- 3.1 Getting on and off tractors and mobile machinery**
- 3.2 Falls from horses**
- 3.3 In the milking shed**
- 3.4 Vats and tanks**
- 3.5 Silos**

The most common slip, trip and fall hazards on farms are outlined in this section. Guidance is provided about how to effectively manage these hazards.

### 3.1 GETTING ON AND OFF TRACTORS AND MOBILE MACHINERY

Getting off a tractor is one of the most common causes of slips, trips and falls on farms. Injuries happen when tractor drivers slip and fall to the ground, or jump down and land heavily on uneven surfaces. If drivers get off facing away from the tractor, they can slip or trip, or their pant cuffs or boot loops can snag, tripping them forward off the tractor.

#### MANAGING THE HAZARD:

When climbing on and off a tractor, always keep three points of contact (eg two hands and one foot) with the tractor or ground. Get off facing towards the tractor (the same as you do when mounting). Never jump on or off a moving tractor.

Clean the steps regularly. You are more likely to slip and fall if the tractor steps are dirty or wet.

Tractor drivers should also wear suitable footwear with a good grip and clothes like overalls that will not snag on machinery.

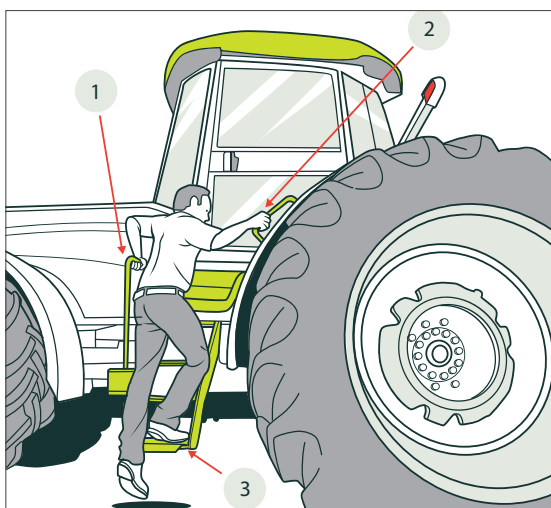


Figure 2: Getting on and off tractors safely

For more information on tractor safety, see WorkSafe New Zealand's *Good Practice Guide: Safe Use of Tractors on Farms*.

### 3.2 FALLS FROM HORSES

Falls from horses on farms are common and can cause serious injuries like broken bones, neck and head injuries. They can also kill.

#### MANAGING THE HAZARD:

Always wear a helmet when riding a horse.

An approved helmet will reduce the risk of head injury if you fall or a horse kicks you, because it protects your brain. You can still get concussion even if you wear a helmet. Properly fit the helmet so it sits one inch above your eyebrows. Show new riders how to adjust their helmet to fit.

Children should wear a helmet whenever they are around horses.

To reduce the chances of falling from a horse:

- > Stay alert and in a controlling position when on the horse.
- > Only adjust equipment from the ground. Ask someone to help adjust your girth strap and stirrup length.
- > If riding through water or bush, kick your feet out of the stirrups in case you fall.
- > Riders must be careful when galloping close to another animal. It is dangerous to let the horse touch another animal behind its shoulder point (wither). The horse can fall if it touches the animal's hind legs or the animal turns under the horse's neck.
- > Don't ride under low-slung wires or paddock clotheslines.

- > Take care when riding in slippery or boggy conditions.

If your horse slips and falls, stay calm and let the horse 'find its feet'. You may not have to get off. If you do, check the horse isn't hurt before getting back on from stable ground.

For more information about safety around horses on the farm, please see WorkSafe NZ's *Good Practice Guideline: Riding Horses on Farms*.

### 3.3 IN THE FARM DAIRY

Slips and trips are one of the most common accidents when working in and around the farm dairy. They often happen in the pit during milking, when herding cattle, getting cows in for milking, and during maintenance and cleaning.

Causes of slips and trips:

- > Slippery surfaces – wet or dirty surfaces (especially concrete) from manure, milk, algal build-up, oils, feed and cleaning fluids.
- > Poorly designed steps – too high, not deep enough, or in poorly lit areas, for example: in and around the pit.
- > Divided attention – such as watching stock while moving across an uneven surface.
- > Poor footwear – particularly if the tread is worn.
- > Speed – walking quickly, running, jumping or taking shortcuts.
- > Obstacles – a step or rise as little as 9–10mm can cause trips (such as pipes or cables in the milking shed) and rough ground.
- > Poor housekeeping and maintenance.

#### MANAGING THE HAZARD:

HAZARDS	CONTROLS
Wet or slippery surfaces	<ul style="list-style-type: none"> <li>&gt; Make sure footwear has good tread.</li> <li>&gt; Have a process for cleaning spills. Make sure workers follow it.</li> <li>&gt; Improve traction in yards for cattle and people by scouring the surface and removing algae by high-pressure washing.</li> <li>&gt; Have good light and ventilation to help floors dry.</li> <li>&gt; Clean up manure, oil, chemical and feed spills on floors and walkways.</li> <li>&gt; Install non-slip matting in wet work areas.</li> </ul>
Hoses, pipes and uneven surfaces	<ul style="list-style-type: none"> <li>&gt; Lay hoses along walls, out of people's way.</li> <li>&gt; Run pipes along walls instead of walkways.</li> <li>&gt; Remove unused fittings, like bolt fasteners in floors.</li> <li>&gt; Move obstacles away from walkways and vat room entrances.</li> <li>&gt; If you can't remove a tripping hazard, highlight it with yellow paint, tape or safety signs.</li> <li>&gt; Keep floors and steps in good condition.</li> <li>&gt; Trim grass to show potential tripping hazards.</li> <li>&gt; Return chemicals and equipment to storage areas after use.</li> </ul>
Steps	<ul style="list-style-type: none"> <li>&gt; Build pit steps properly – use non-slip surfaces.</li> <li>&gt; Fit suitable hand rails.</li> </ul>
Overhead obstacles	<ul style="list-style-type: none"> <li>&gt; If you can't remove overhead obstacles, cover them with padding, highlight them in bright colours and/or put up safety signs warning people.</li> </ul>

For more information about safety in and around milking sheds, please see WorkSafe NZ's *Good Practice Guideline: Staying safe in and around farm dairies*.

### 3.4 VATS AND TANKS

People can fall from milk vats or tanks when they are:

- > climbing to the top hatch
- > checking levels
- > cleaning inside vats and tanks
- > doing maintenance.

#### MANAGING THE HAZARD:

Try doing the task from the ground by:

- > having access to vats and tanks near the ground
- > fitting outlets, inlets and controls near the ground
- > fitting measuring equipment displays where they can be seen from the ground
- > using fully automatic cleaning vats
- > installing horizontal vats
- > cleaning in a way that lets workers do the job from the ground, such as using long-handled equipment or pressure cleaners
- > moving residue to the bottom of the vat or tank when cleaning for ground level removal.

If these controls are not practical, control the risk by:

1. installing fixed stairs, ramps, work platforms or ladders
2. using a fall prevention system (such as a harness)
3. using a suitable ladder.

#### Note:

- > You might have to attach work platforms to the shed floor, ceiling, wall or other place with anchorage points. Do not attach a work platform to the shed floor or ceiling without checking that the building is strong enough to hold it.
- > Control unauthorised access to vats, for example: use chains across fixed ladders and lock hatches.
- > Vats and tanks are potentially confined spaces. Plan entries before anyone goes in.
- > Don't enter vats without a person on the outside acting as a spotter.

Rescue plans must be in place, including a way to talk to someone outside the vat - like a mobile phone. Turn off and isolate pipework and electrical sources before entering.

### 3.5 SILOS

People face a high chance of falling when accessing silos. Use a fall protection system (eg a harness) to keep people safe. Some hazardous situations are:

- > getting to the top hatch for delivery
- > inspecting storage levels through the top hatch
- > fumigating
- > sampling during filling
- > maintaining the roof
- > securing the top hatch.

### MANAGING THE HAZARD:

First, try doing the task from the ground:

- > Blow product into the silo through permanent filler tubes.
- > Install fill indicators (like clear sight glasses) at regular spaces up the side of the silo.
- > Install a lid opening and closing device that can be worked from the ground.
- > Use loading hatches, operated from the ground, that allow complete filling.
- > Use a remote system to assess grain levels, like a mechanical fill indicator that can be seen from the ground, a hand-held sensor or a weight indicator.
- > Fit a ground-level access hatch for cleaning.
- > Use an extension pole to clean inside without entering the silo.

If it is not practical to use these options, control the risk by:

1. installing fixed stairs, ramps, work platforms or ladders
2. using an elevated work platform (EWP), like a cherry picker
3. using a fall prevention system (such as a harness).

### Note:

- > Control unauthorised access to silos by, for example, blocking the base of the ladder cage with a lockable barrier or using a cover on the access ladder. Lock hatches wherever possible.
- > Remove debris from under the access area.
- > Guard augers and other machinery.
- > Only use a trained and equipped person to make any changes to the silo, always seek guidance from the supplier before work starts.

Additional tips:

- > Do not use portable ladders to access silos.
- > Never use inappropriate equipment to access heights, like front-end loader buckets.
- > Install handrails at the top of the silo.
- > Install a ladder cage.



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## **TRAINING REQUIREMENTS**

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### **IN THIS SECTION:**

- 4.1 General requirements**
- 4.2 Training for health and safety representatives**

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Unless the employer can eliminate all slipping, tripping and falling hazards from the farm, employees need job-specific training and information on how to reduce their chances of being hurt.

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#### **4.1** GENERAL REQUIREMENTS

The HSE Act says employers must give employees information about the hazards they're going to work with or create when working. Employers must tell employees how they can control these hazards and work safely.

Employees should have the knowledge and experience to work safely. If they don't, an experienced person has to supervise them until they can work safely on their own. If they need to use protective equipment and clothing, they need training in where the equipment is kept, and how to wear or use it.

Trained employees should know:

- > how to do the task properly and safely
- > the hazards that go with the job
- > how to control the hazards
- > how to use equipment properly and safely
- > how to assess a task to recognise slipping, tripping or falling hazards
- > how to use personal protective equipment.

Training cannot make up for:

- > poor work area layout
- > poor working conditions.

Farmers should note who attended training and what topics the training covered.

Farmers should think about safety when buying new farm equipment, including information on health and safety training requirements and information on how to minimise the hazards of working with the equipment. Suppliers should ensure that any equipment they provide is safe.

#### **4.2** TRAINING FOR HEALTH AND SAFETY REPRESENTATIVES

The HSE Act gives employees the right to be involved in workplace health and safety matters. One way to do this is by electing a health and safety representative. This is someone employees can go to when they have any concerns or suggestions about health and safety in the workplace. The representative will work with the employer in good faith to find a solution.

This representative can take two days paid leave each year to do approved health and safety training.

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## REFERENCES

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### IN THIS SECTION:

- 5.1 Glossary
- 5.2 Bibliography

## 5.1 GLOSSARY

TERM	DEFINITION
Acute Low Back Pain	<p>This is pain in your lower back that lasts less than three months. There are no leg symptoms, serious back injury or 'red flag' medical conditions (see New Zealand Acute Low Back Pain Guide).</p> <p>Research shows that most back claims made by the entire population fall into this category.</p>
All Practicable Steps	<p>Section 2A Health and Safety in Employment Act 1992:</p> <p>'The steps taken to achieve the result that it is reasonably practicable to take in the circumstances, having regard to:</p> <ol style="list-style-type: none"> <li>1. the nature and severity of harm that may be suffered if the result is not achieved; and</li> <li>2. the current state of knowledge about the likelihood and severity of harm that will be suffered if the result is not achieved; and</li> <li>3. the current state of knowledge about harm of that nature; and</li> <li>4. the current state of knowledge about the means available to achieve the results and about the likely effectiveness of each of those means; and</li> <li>5. the availability and cost of each of those means.</li> </ol> <p>'To avoid doubt, a person required by the Health and Safety in Employment Act 1992 to take all practicable steps is required to take those steps only in respect of circumstances that the person knows or ought reasonably to know about.'</p>
Asymmetrical Posture	<p>A posture that requires the body to twist or bend to one side or to bear the weight unevenly on the feet.</p>
Back Injuries (Serious)	<p>Serious back injuries are:</p> <ul style="list-style-type: none"> <li>&gt; fractures of the spine</li> <li>&gt; a back problem that makes a medical problem worse (eg osteoarthritis)</li> <li>&gt; problems with the discs between your vertebrae with serious complications</li> <li>&gt; problems that cause long-lasting severe pain, needing a long time off work.</li> </ul>
Biomechanics	<p>Biomechanics uses physics and engineering concepts to describe the how the body works and the forces acting on the body during activity.</p>
Confined Space	<p>AS 2865 Confined Spaces:</p> <p>'An enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following:</p> <ol style="list-style-type: none"> <li>a. An oxygen concentration outside the safe oxygen range.</li> <li>b. A concentration of airborne contaminant that may cause impairment, loss of consciousness or asphyxiation.</li> <li>c. A concentration of flammable airborne contaminant that may cause injury from fire or explosion.</li> <li>d. Engulfment in a stored free-flowing solid or a rising level of liquid that may cause suffocation or drowning.' </li></ol>
Harm	<p>Section 2(1) of the Health and Safety in Employment Act 1992</p> <p>'Illness, injury or both.'</p>
Hazard	<p>Section 2(1) of the Health and Safety in Employment Act 1992:</p> <p>"An activity, arrangement, circumstance, event, occurrence, phenomenon, process, situation or substance...that is an actual or potential cause or source of harm".</p>

SECTION 5.0 // REFERENCES

TERM	DEFINITION
<b>Musculoskeletal Disorders (Work-Related)</b>	A collective name for a range of conditions that affect the muscles, tendons, bones and joints. This term includes occupational overuse syndromes, back injuries and acute low back pain.
<b>Musculoskeletal System</b>	The integrated system of the muscles, bones and joints in the body.
<b>OOS</b>	Occupational overuse syndrome. An umbrella term for a range of disorders characterised by pain and/or other sensations in muscles, tendons, nerves, soft tissues and joints with evidence of clinical signs. Overuse syndromes are musculoskeletal disorders.
<b>Personal Protective Equipment (PPE)</b>	Items of personal equipment worn for protection of some sort, eg ear muffs, gloves, boots.
<b>Pit</b>	The pit, or milking pit, is a sunken area that houses both the milker and some milking equipment during milking. This puts the milker at shoulder level with udders and reduces physical demands.
<b>Safe</b>	Section 2(1) Health and Safety in Employment Act 1992:  'Not exposed to any hazards or free from hazards'.
<b>Serious Harm</b>	First Schedule to the Health and Safety in Employment Act 1992  'Any of the following conditions that amounts to or results in permanent loss of bodily function, or temporary severe loss of bodily function: respiratory disease, noise-induced hearing loss, neurological disease, cancer, dermatological disease, communicable disease, musculoskeletal disease, illness caused by exposure to infected material, decompression sickness, poisoning, vision impairment, chemical or hot-metal burn of eye, penetrating wound of eye, bone fracture, laceration, crushing. > Amputation of body part. > Burns requiring referral to a specialist medical practitioner or specialist outpatient clinic. > Loss of consciousness from lack of oxygen. > Loss of consciousness, or acute illness requiring treatment by a medical practitioner, from absorption, inhalation, or ingestion, of any substance. > Any harm that causes the person harmed to be hospitalised for a period of 48 hours or more commencing within 7 days of the harm's occurrence.'
<b>Significant Hazard</b>	Section 2(1) of the Health and Safety in Employment Act 1992:  'Significant hazard means a hazard that is an actual or potential cause or source of— a. serious harm; or b. harm (being harm that is more than trivial) the severity of whose effects on any person depend (entirely or among other things) on the extent or frequency of the person's exposure to the hazard; or c. harm that does not usually occur, or usually is not easily detectable, until a significant time after exposure to the hazard.' (For example, deafness from prolonged exposure to noise in the workplace.)
<b>Strains and Sprains</b>	These terms are used in the sense of their normal meanings in a medical diagnosis.
<b>Workplace Design</b>	The design of the workplace –in relation to the characteristics of the people who will use the workplace and the work that will be done in it.



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July 2014



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ISBN: 978-0-478-42533-8 (online)

ISBN: 978-0-478-42532-1 (print)